



D-1171 R

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of)	
Donald McCoy, et al.)	
Serial No.: 10/620,911)	Art Unit 3694
Confirmation: 8962)	
Filed: July 15, 20003)	Patent Examiner
)	Hai Tran
Title: AUTOMATED BANKING)	
MACHINE BOOTABLE)	
MEDIA AUTHENTICATION)	

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION PURSUANT TO 37 C.F.R. § 1.132

Sir:

I, Patrick C. Green, hereby declare as follows:

1. I am a former employee of Diebold, Incorporated and/or InterBold, a wholly owned subsidiary of Diebold, Incorporated (collectively referred to hereafter as "Diebold"). I was employed by Diebold as an engineer and engineering manager in the development of automated banking machines such as automated teller machines (ATMs)

and associated computer software for those machines. I retired from Diebold in 2007. I began working in the automated banking machine industry in approximately 1974.

2. Based on my knowledge and experience, a person having ordinary skill in the art of automated banking machines at the time the present invention was made would have a four-year college degree in engineering, such as mechanical or electrical engineering, and have at least four years of experience in designing automated banking machines (or equivalent years of working experience in the design of automated banking machines).

3. I have reviewed the following references cited in the above-mentioned application (“application”):

- Harding, et al., U.S. Patent No. 6,651,188 (“Harding”); and
- Watson, U.S. Patent No. 5,475,839 (“Watson”).

4. I have reviewed the subject matter disclosed in the application.

5. I have reviewed the claimed subject matter as set forth in the amendment filed in the Response dated April 17, 2008. A copy of the reviewed claims is attached.

6. There are significant differences between what is disclosed in the applied art of Harding and Watson and what is claimed. For example, nowhere do the cited references (alone or in combination) teach or suggest a BIOS of a computer of an automated banking machine (or any other machine) that specifies which of a plurality of storage device drives corresponds to a default storage device drive that does not require an input

of a first BIOS password, and which of the plurality of storage device drives corresponds to the at least one alternative storage device drive that does require the input of the BIOS boot password. In addition, nowhere do the cited references (alone or in combination) teach or suggest that: when the bootable media of the at least one alternative storage device drive is detected, the booting of the computer includes requiring at least once for a user to input a password . . .; and when the bootable media of the at least one alternative storage device drive is not detected, the computer is booted responsive to a boot record on the bootable media of the default storage device drive without requiring a user to input the BIOS boot password.

7. The recited subject matter (noted in paragraph 6) that is not disclosed or suggested in Harding and Watson, would also not be considered obvious in view of a combination of Harding and Watson by a person having ordinary skill in the art at the time of the invention.

For example, Harding shows a computer with a primary BIOS and a backup BIOS. Neither of these BIOSs includes any capability to be configured to enable a BIOS to specify a default drive that (when an alternative drive is not detected) does not require a BIOS boot password, and an alternative drive (when detected) that does require a BIOS boot password. Further even if each BIOS of Harding could theoretically be modified to include the capability of requiring a boot password in view of Watson, such a modification would still not result in a BIOS that could be configured to correspond to the recited subject matter.

For example (based on improper use of hindsight in view of Applicants own disclosure), allowing Harding to have BIOSs with boot passwords could allow (although not disclosed or suggested in the applied art) a user to configure the primary BIOS of Harding to require a boot password while the backup BIOS of Harding is not configured to require a boot password. According to Harding, its primary BIOS would be used with the boot password until a validation of the primary BIOS fails, and then the backup BIOS would be used, which does not require a boot password. Thus, when Harding's primary BIOS is valid, the combination of Harding and Watson would at best require a boot password for both a default drive and an alternative drive. The combination of Harding and Watson does not provide any disclosure or suggestion, or any other reason to hinge use of a BIOS boot password on detection of an alternative drive that is specifically configured in the BIOS to require a password. Similarly, When Harding's primary BIOS is invalid, the combination of Harding and Watson (if configured as proposed above) would not require a boot password, regardless of whether an alternative drive is detected.

In addition, the Action dated February 5, 2009 states (at page 5) that Harding could be modified so that "a password would assure that only the correct BIOS is used." Thus it appears that the Action is suggesting that Harding could be modified in view of Watson to trigger which BIOS (i.e. the primary or backup) is booted on a correct BIOS boot password. However, such a modification in Harding would destroy the utility of Harding which is intended to provide a backup BIOS in case the primary BIOS is invalid. By hinging which BIOS is used on a password, the backup BIOS no longer becomes a backup BIOS which is contrary to the teachings of Harding. For example, if the BIOS

boot password is incorrect, the backup BIOS would be booted, even though the primary BIOS is still valid. Such a modification to Harding as suggested in the Action would not be obvious to one of ordinary skill in the art at the time of the invention. Further such a modification to Harding as suggested in the Action would still not correspond to the pending claims. For example, with such a suggested combination, a boot password would always be required. This does not correspond to the recited subject matter in which the specified default drive does not require input of a BIOS boot password, when the specified alternative drive is not detected.

To one of ordinary skill in the art at the time of the invention, there is no apparent reason or other rationale to modify a combination of Harding and Watson to result in a BIOS that can be configured to specify which drive corresponds to a default bootable drive that does not require a BIOS boot password before being booted (when an alternative drive is not detected by the BIOS), and which alternative bootable drive does require a BIOS boot password before being booted when the alternative drive is detected by the BIOS. This recited subject matter does not predictably result from a combination of the applied art, to one of ordinary skill in the art at the time of the invention.

8. In addition, a person of ordinary skill in the art at the time of the invention would consider the applied art as being inoperative and non-enabling with respect to the subject matter of the claims in the present application. For example, even if there was a generic need in the prior art to make ATMs more secure, such a need could be fulfilled by an unlimited and/or unpredictable number of different features unrelated to the present claims (e.g., hardware dongles, encrypted hard drives, longer passwords, biometric input

devices, etc.). With respect to the subject matter of the present claims, a person of ordinary skill in the art could not make or use the claimed invention from the applied art (even if coupled with information known in the art) without undue experimentation. Nowhere does Harding and Watson or any of the other applied art provide any enabling disclosure which would enable a person of ordinary skill in the art at the time of the invention to hinge a requirement to use, or not use, a BIOS boot password based on the detection of an alternative bootable drive. Such subject matter is not found in Harding and Watson and one of ordinary skill in the art at the time of the invention would not find that such subject matter predictably results from the teachings of Harding and Watson. Neither Harding and Watson provide a sufficient enabling disclosure to use or make an automated banking machine have a new BIOS that is configurable with respect to specifying both: that one bootable drive if detected by the BIOS requires an input of a BIOS password before booting; and that a second bootable drive does not require input of a BIOS password before booting.

9. The applied references do not disclose or suggest and enable all of the features relationships, and steps recited in the claims. Further, a person of ordinary skill in the art at the time of the invention would not regard the pending claims as being obvious in view of a combination of the applied references based on any of the following rationales: combining prior art elements according to known methods to yield predictable results; simple substitution of one known element for another to obtain predictable results; use of known techniques to improve similar devices (methods or products) in the same way; applying known techniques to a known device (method or product) ready for

improvement to yield predictable results; choosing from a finite number of identified, predictable solutions, each with a reasonable expectation of success; known work in one field of endeavor prompting variations of such known work for use in either the same field or a different field based on design incentives or other market forces in a case where the variations would have been predictable to one of ordinary skill in the art; some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify or to combine prior art reference teachings to arrive at the claimed invention. In conclusion, it was not known nor would it have been obvious to a person having ordinary skill in the art having full view of the cited references, to have produced the claimed features, relationships, and steps.

I hereby declare that all statements herein of my own knowledge are true, that all statements made on information and belief are believed to be true, and that the statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both (18 U.S.C. § 1001), and may jeopardize the validity of the application or any patent issuing thereon.


Patrick C. Green

APRIL 30, 2009
Date

Pending Claims in U.S. Application No. 10/620,911 filed July 15, 2003 as set forth in the Amendment responding to the Office Action dated April 17, 2008

1. A method comprising:

- a) detecting with a computer of an automated banking machine for the presence of a bootable media in at least one alternative storage device drive of the automated banking machine, wherein a BIOS of the computer specifies which of a plurality of storage device drives corresponds to a default storage device drive which does not require an input of a first BIOS password, and which of the plurality of storage device drives corresponds to the at least one alternative storage device drive which does require the input of the BIOS boot password;
- b) booting the computer responsive to a boot record on either the bootable media of the at least one alternative storage device drive or a bootable media of the default storage device drive;

wherein when the bootable media of the at least one alternative storage device drive is detected in step (a), the booting of the computer includes requiring at least once for a user to input a password, wherein when the inputted password corresponds to the BIOS boot password stored in the BIOS of the computer, the computer is booted responsive to the boot record on the bootable media of the at least one alternative storage device drive; and

wherein when the bootable media of the at least one alternative storage device drive is not detected in step (a), the computer is booted responsive to a boot record on the bootable media of the default storage device drive without requiring a user to input the BIOS boot password.

- 2. The method according to claim 1, wherein when the bootable media of the at least one alternative storage device drive is detected in step (a) and the BIOS boot password is not inputted within a predetermined amount of time, in step (b) the computer is booted responsive to the boot record of the bootable media of the default storage device drive.
- 3. The method according to claim 1, wherein when the bootable media of the at least one alternative storage device drive is detected in step (a) and at least once the inputted password does not correspond to the BIOS boot password stored in the BIOS of the computer, in step (b) the computer is booted responsive to the boot record of the bootable media of the default storage device drive.

4. The method according to claim 1, and further comprising:
 - c) executing at least one terminal control software component in the computer which is stored on the bootable media of the default storage device drive; and
 - d) dispensing cash from a cash dispenser responsive to at least one terminal control software component.
5. The method according to claim 1, and further comprising:
 - c) receiving a first input that is representative of a request to run a BIOS setup program; and
 - d) requiring a user to provide a second input that corresponds to the BIOS boot password stored in the BIOS prior to running the BIOS setup program.
6. The method according to claim 1, and further comprising:
 - c) receiving a first input that is representative of a request to run a BIOS setup program; and
 - d) requiring a user to provide a second input that corresponds to a BIOS program password stored in the BIOS prior to running the BIOS setup program.
7. The method according to claim 6, wherein in steps (b) and (c) both the BIOS boot password and the BIOS program password are stored in the BIOS of the computer.
8. The method according to claim 1, wherein in step (b) the default storage device drive and associated bootable media correspond to a hard drive.
9. The method according to claim 8, wherein in step (b) the bootable media of the at least one alternative storage device drive corresponds to a portable media.
10. The method according to claim 9, wherein in step (b) the portable media corresponds to a floppy disk.
11. The method according to claim 9, wherein in step (b) the portable media corresponds to a CD.
12. The method according to claim 9, wherein in step (b) the portable media corresponds to a DVD.
13. The method according to claim 9, wherein in step (b) the portable media corresponds to a portable hard drive.

14. At least one article bearing computer executable instructions operative to cause a computer in an automated banking machine to cause the automated banking machine to carry out a method comprising:

- a) detecting with the computer of the automated banking machine, the presence of a bootable media in at least one alternative storage device drive of the automated banking machine, wherein a BIOS of the computer specifies which of a plurality of storage device drives corresponds to a default storage device drive that does not require an input of a first BIOS password, and which of the plurality of storage device drives corresponds to the at least one alternative storage device drive that does require the input of the BIOS boot password;
- b) booting the computer responsive to a boot record on either the bootable media of the at least one alternative storage device drive or a bootable media of the default storage device drive;

wherein when the bootable media of the at least one alternative storage device drive is detected in step (a), the booting of the computer includes requiring at least once for a user to input a password, wherein when the inputted password corresponds to the BIOS boot password stored in the BIOS of the computer, the computer is booted responsive to the boot record on the bootable media of the at least one alternative storage device drive; and

wherein when the bootable media of the at least one alternative storage device drive is not detected in step (a), the computer is booted responsive to a boot record on the bootable media of the default storage device drive without requiring a user to input the BIOS boot password.

15. The at least one article according to claim 14, wherein the instructions include a file that is operative to update a flash memory device of the computer of the automated banking machine.

16. A method comprising:

- a) detecting with a computer of an automated banking machine, the presence of a first bootable media in at least one first storage device drive of the automated banking machine;
- b) booting the computer responsive to a boot record on either the first bootable media of the at least one first storage device drive or a second bootable media of a second storage device drive of the automated banking machine;

wherein when the first bootable media is detected in step (a), the booting of the computer includes:

determining responsive to a BIOS of the automated banking machine that the at least one first storage device drive requires a BIOS boot password;

requiring at least once for a user to input the BIOS boot password, wherein when an inputted password corresponds to a BIOS boot password stored in the BIOS of the computer, the computer is booted responsive to a first boot record on the first bootable media; and

wherein when the first bootable media is not detected in step (a) the booting of the computer includes:

determining responsive to a BIOS of the automated banking machine that the second storage device drive does not require the BIOS boot password, wherein the computer is booted responsive to the boot record on the second bootable media of the second storage device drive without requiring a user to input the BIOS boot password.

17. At least one article bearing computer executable instructions operative to cause a computer in an automated banking machine to cause the automated banking machine to carry out a method comprising:

- a) detecting with the computer of the automated banking machine, the presence of a first bootable media in at least one first storage device drive of the automated banking machine;
- b) booting the computer responsive to a boot record on either the first bootable media of the at least one first storage device drive or a second bootable media of a second storage device drive of the automated banking machine;

wherein when the first bootable media is detected in step (a), the booting of the computer includes:

determining responsive to a BIOS of the automated banking machine that the at least one first storage device drive requires a BIOS boot password;

requiring at least once for a user to input the BIOS boot password, wherein when an inputted password corresponds to a BIOS boot password stored in the BIOS of the computer, the computer is booted responsive to a first boot record on the first bootable media; and

wherein when the first bootable media is not detected in step (a) the booting of the computer includes:

determining responsive to a BIOS of the automated banking machine that the second storage device drive does not require the BIOS boot password, wherein the computer is booted responsive to the boot record on the second bootable media of the second storage device drive without requiring a user to input the BIOS boot password.

18. The at least one article according to claim 17, wherein the instructions include a file that is operative to update a flash memory device of the computer of the automated banking machine.

19. A method comprising:

- a) detecting with a computer of an automated banking machine that a bootable media is present in at least one alternative storage device drive of the automated banking machine, wherein a BIOS of the computer specifies that a BIOS password is required for the bootable media of the at least one alternative storage device drive;
- b) prompting at least once for a user to input the BIOS boot password;
- c) determining that an inputted password corresponds to the BIOS boot password stored in the BIOS of the computer
- d) booting software of the computer responsive to a first boot record on the bootable media of the at least one alternative storage device drive;
- e) restarting the computer;
- f) detecting with the computer that a bootable media is not present in the at least one alternative storage device drive; and
- g) booting the computer responsive to a boot record on a bootable media of a default storage device drive without requiring a user to input the BIOS boot password.

20. At least one article bearing computer executable instructions operative to cause a computer in an automated banking machine to cause the automated banking machine to carry out a method comprising:

- a) detecting with the computer of an automated banking machine that a bootable media is present in at least one alternative storage device drive of the automated banking machine, wherein a BIOS of the computer specifies that a BIOS password is required for the bootable media of the at least one alternative storage device drive;

- b) prompting at least once for a user to input the BIOS boot password;
- c) determining that an inputted password corresponds to the BIOS boot password stored in the BIOS of the computer;
- d) booting software of the computer responsive to a first boot record on the bootable media of the at least one alternative storage device drive;
- e) restarting the computer;
- f) detecting with the computer that a bootable media is not present in the at least one alternative storage device drive; and
- g) booting the computer responsive to a boot record on a bootable media of a default storage device drive without requiring a user to input the BIOS boot password.

21. The at least one article according to claim 20, wherein the instructions include a file that is operative to update a flash memory device of the computer of the automated banking machine.

22. An automated banking machine comprising:

a computer, wherein the computer includes a BIOS, wherein the BIOS includes a BIOS boot password, and wherein the BIOS specifies a default storage device drive which does not require a boot password;

at least one input device in operative connection with the computer;

at least one transaction function device in operative connection with the computer; and

at least one first storage device drive and a second storage device drive in operative connection with the computer, wherein the second storage device drive corresponds to the default storage device drive specified in the BIOS, wherein when the computer detects a bootable media associated with the at least one first storage device drive, the computer is operative to require a user to input a BIOS boot password through the at least one input device prior to booting responsive to a boot record associated with the bootable media of the at least one first storage device drive, wherein when the computer does not detect a bootable media associated with the at least one first storage device drive, the computer is operative to boot responsive to a boot record on a bootable media of the second storage device drive without requiring a user to input the BIOS boot password.

23. The machine according to claim 22, wherein when the bootable media of the at least one first storage device drive is detected by the computer and the BIOS boot password has not been inputted thorough the at least one input device within a predetermined amount of time, the computer is operative to automatically boot responsive to the boot record associated with the bootable media of the second storage device drive.

24. The machine according to claim 22, wherein when the bootable media of the at least one first storage device drive is detected by the computer and at least one password inputted through the at least one input device does not correspond to the BIOS boot password, the computer is operative to automatically boot responsive to the boot record associated with the bootable media of the second storage device drive.

25. The machine according to claim 22, wherein the second storage device drive and associated bootable media corresponds to a hard drive.

26. The machine according to claim 25, wherein the bootable media for the at least one first storage device drive includes a portable bootable media.

27. The machine according to claim 26, wherein the portable bootable media includes a floppy disk.

28. The machine according to claim 26, wherein the portable bootable media includes a CD.

29. The machine according to claim 26, wherein the portable bootable media includes a DVD.

30. The machine according to claim 26, wherein the portable bootable media includes a portable hard drive.

31. The machine according to claim 22, wherein the at least one first storage device drive corresponds to a first portable storage device drive and a second portable storage device drive, wherein the second storage device drive corresponds to a hard drive, wherein the BIOS includes a boot order, wherein the boot order specifies a sequence for storage device drives in which the computer is operative to attempt to boot from, wherein the boot order includes the sequence of: the first portable storage media device drive, the second portable storage media device drive and the hard drive.

32. The machine according to claim 22, wherein the computer includes a BIOS setup program, wherein the computer is operative to require that a user input through the at least one input device, the BIOS boot password prior being granted access to modify the BIOS through the BIOS setup program.

33. The machine according to claim 22, wherein the computer includes a BIOS setup program and a BIOS program password, wherein the computer is operative to require that a user input through the at least one input device, the BIOS program password prior being granted access to modify the BIOS with the BIOS setup program.

34. The machine according to claim 22, wherein the transaction function device includes a cash dispenser, wherein when the computer has booted responsive to the boot record of the bootable media of the second storage device drive, the computer is operative to cause the cash dispenser to dispense cash responsive to at least one further input through the at least one input device.